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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,589	05/29/2001	Shinpei Oono	DAIN:312D	4628

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EXAMINER
HECKENBERG JR, DONALD H

ART UNIT	PAPER NUMBER
1722	7

DATE MAILED: 02/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

MF 7

Office Action Summary	Application No. 09/865,589	Applicant(s) OONO ET AL.	
	Examiner Donald Heckenberg	Art Unit 1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 January 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *7 and 8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *7 and 8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. *08/429,218* .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

1. The continuation data at the beginning of the specification needs to be updated to reflect that the parent application 09/263,817 has been issued as US Pat. No. 6,270,331.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. The factual inquiries set forth in Graham **v.** John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohno (US 5,415,536; previously of record) in view of Nied et al. (US 5,290,490; hereinafter "Nied").

Ohno teaches an apparatus for forming a pattern onto an article during the injection molding thereof, comprising feed means that feeds a pattern-bearing film to a molding position (see fig. 1) where a male mold (1) and a female mold (2) are opposed, a heating board (9) that heats the pattern-bearing film so as to soften it, the heating board having a heating surface and being movable into and away from a space between the male mold and the female mold (as shown in fig. 1), transfer means that transfers the pattern-bearing film to an internal surface of the female mold so as to contact the pattern-bearing film with the internal surface (as shown in fig. 7), closing means

that causes the mold and female mold thereon to approach each other to form a closed molding cavity (as shown in fig. 15), and a resin injection device (5) that injects a molten resin into the cavity to form a molded article to adhere the pattern-bearing film to the surface of the article. Ohno further teaches a heating wire (24) within the heating board to generate the heat, and the heating board to be arranged in a vertical direction (as shown in fig. 1).

Ohno fails to teach the heating board to be divided into a plurality of independently controlled heating blocks with the blocks being arranged in a vertical direction so that one heating block is disposed adjacently above another heating block.

Nied teaches an apparatus for the differential heating and thermoforming of a polymer sheet, wherein the heater is divided into a plurality of independently controlled segments (24) for the purpose of differentially heating different segments of the polymer sheet (see col. 2, lns. 39-50, col. 4, lns. 26-29 & 36-41, col. 6, lns. 13-16).

It would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to have modified the apparatus of Ohno as such to have the heating board divided into a plurality of heating blocks because this would have

allowed for the differential heating of different areas of the film as suggested by Nied. By dividing the heating board of Ohno into a plurality of blocks as suggested by Nied, the resulting heating board would thereby have heating blocks arranged in a vertical direction with one heating block disposed adjacently above another block (note Ohno teaches the heating board to be placed in a vertical direction as shown in fig. 1).

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohno and Nied as applied to claim 7 above, and further in view of Chapman (US 5,423,669; previously of record).

Ohno and Nied teach the apparatus as described above. Ohno and Nied fail to teach the use of temperature sensors to monitor the temperature of each heating block.

Chapman teaches an apparatus for thermoforming film including a heating unit (38) which has a temperature sensor for monitoring the heat imparted to the film and to adjust the heater accordingly (col. 4, lns. 19-30).

It would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to have modified the apparatus of Ohno and Nied as such to have provided the heating blocks with a temperature sensor because this would have allowed for the monitoring of the heat imparted to the film as

suggested by Chapman. Given the teaching of Ohno and Nied for the differential heating of different areas using independent heating blocks, it further would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to have used temperature sensors at each block to monitor the heat imparted to the film at each independent block because the temperature to be generated at each block is different. Note that such a modification requires the duplication of a known part, a temperature sensor, for the multiplied effect of monitoring the temperature at different points. Generally, the duplication of a known part for a multiplied effect has no patentable significance unless it can be shown that there is a new and unexpected result. *See* In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960); St. Regis Paper Co. v. Bemis Co., Inc., 549 F.2d 833, 193 USPQ 8 (CA7 1977).

7. Applicant's arguments with respect to claims 7-9 have been considered but are moot in view of the new ground(s) of rejection.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald Heckenberg whose telephone number is (703) 308-6371. The

examiner can normally be reached on Monday through Friday from 9:30 A.M. to 6:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Nam Nguyen, can be reached at (703) 308-3322. The official fax phone number for the organization where this application or proceeding is assigned is (703) 305-7718, and the unofficial fax phone number is (703) 305-3602.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Donald Heckenberg
February 20, 2002

ROBERT DAVIS
PRIMARY EXAMINER
GROUP 1300 / 1722

2/20/02